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43. *Anisocalvia 14-guttata*, ♀, form *similis*.
44. " *12-maculata*.

Fig. 45 is not drawn from the type.

45. *Anisocalvia 14-guttata*, ♀, form *victoriana*.
46. *Anatis 15-punctata*.
47. " " dark form.
48. " " var. *mali*.
49. " *rathvoni*.
50. " " var. *lecontei*.
51. *Neomysia pullata*.
52. " " var. (Ontario).
53. " *hornii*.
54. " *subvittata*.
55. *Psyllobora 20-maculata*.
56. " " var. *parvinotata*.
57. " *renifer*.
58. " *tædata*, form *separata*.
59. " " " *borealis*.
60. " " " *tædata*.

The following were omitted from the Plate IV, Vol. XI.

61. *Hippodamia glacialis*, usual form.
62. " " " "
63. " " unusually dark form taken by Mr. Davis on Staten Island, October 3.

Plate IV, Vol. XI, the right-hand figure of *parenthesis* represents an unusual variety from Tallac, Cal.

◆

LIST OF THE CICINDELIDÆ OF MEXICO AND ON THEIR RELATIONSHIP WITH THE SPECIES OF THE UNITED STATES.

By WALTHER HORN, M.D.,

BERLIN, GERMANY.

Cicindela schaefferi, sp. nov.

Cicindelæ sinaloæ Bat. similis, differt labro in medio ipso sat producto denteque longo ornato; oculis minus prominentibus; ante sulcum basalem pronoto constricto, angulis posticis minus prominentibus, margine antico in medio producto, basi evidentius (subtiliter) transversim striolata, elytris magis parallelis, superiore lunulæ apicalis parte non anticem versus inflexa sed rotundata, parte inferiore spinam versus incrassata, disco punctis 2 (altero ante medium in illa specie deficiente, altero pone medium ut in *P. sinaloa* Bat.) ornato, macula marginali media fere in puncta duo æqualia dissoluta, serie foveolarum juxta-suturalium (in tertia parte basali foveolis viridibus!) minus conspicuis. Long., 9 mm.

One female — the only specimen I know — was kindly given to me by Mr. C. Schaeffer (Brooklyn), who had it in his collection labelled "California?" I believe, to be sure, it comes from north Mexico!

The pattern of the elytra resembles very much that of the European *Cicindela lunulata* F., a humeral and an apical lunula, two marginal spots (connected with each other) and two discoidal spots. The coloration of the body and the shape of the tip of the elytra is like that of *Cicindela sinaloa* Bat.

In 1897 I published, together with Mr. R. Becker and Mr. C. F. Höge (Deutsche Entomologische Zeitschr.), a paper on the Mexican Cicindelidæ and their relationship to the species of the United States and the tropical countries of Central America. I could not adopt Bates' opinion that the Mexican fauna should belong to the neotropical region, as 30 species (of the 80 Mexican Cicindelidæ) occur in the United States, but only 17 are to be found also south of Mexico. At the same time I already stated that in future this proportion would still change in favor of the North American species, as the extreme north of Mexico and the extreme south of the United States were not yet known sufficiently. Time has proved my opinion. One genus of the United States (*Amblychila*) was discovered lately in Sonora. I described *Cicindela wickhami* from southern Arizona and northern Mexico; *C. arizonensis*, generally considered to be a variety of *C. viridisticta* Bat., is a "good" species, and on the other hand, *C. hæmorrhagica* Lec., is but a subspecies of *C. carthagena* Dej.; *C.* (*pusilla* Say var.) *lunalonga* Schpp. occurs also in Lower California; *C. flavopunctata* Chev. was found near Nogales (Arizona!); *Tetracha chevrolati* Chd. — considered always a variety of *T. infuscata* Mann., belongs as a subspecies to *T. carolina* L.; *Cicindela melania* Bat., is the same as *C. viatica* Chev. (var.) and *C. ritteri* is the same as *hornii* Schpp. var., etc. As I am enabled now to correct some other notes in my former paper (1897) I give herewith a new list of the Cicindelidæ of Mexico.

A. CICINDELIDÆ ALOCOSTERNALIÆ W. Horn, Ent. Nachr., 1900, p. 214.

Ctenostoma Klug, Nov. Act. Acad. Leop., X, 1821, p. 304.
Caris FISCH., Gen., 1821, p. 98.

1. **maculicorne** *Chev.*, Rev. Mag. Zoöl., 1856, p. 352.
sigma BAT., Proc. Zoöl. Soc. Lond., 1878, p. 388.

B. CICINDELIDÆ PLATYSTERNALIÆ W. Horn, l. c.

I. CICINDELIDÆ Lac.

a. Euryodini W. HORN, Deutsch. Ent. Zeitschr., 1899, p. 37.

Hiresia *Dej.*, Spec., V, 183, p. 206.

2. **boucardi** *Chev.*, Rev. Mag. Zoöl., 1862, p. 485.

Beckerium *W. Horn*, Deutsch. Ent. Zeitschr., 1897, p. 164.

3. **leptale** *Bat.*, Biol. Centr. Am., 1881, p. 15, pl. 1, f. 23.

b. Odontochilini W. HORN, Deutsch. Ent. Zeitschr., 1899, p. 37.

Odontochila *Cast.*, Silb. Rev., 1834, p. 34.

4. **mexicana** *Cast.*, Et. Entom., 1834–35, p. 38.
   nietoi GUER., Rev. Zoöl., 1844, p. 254.
5. **quadrina** *Chev.*, Col. Mex., 1835, II, p. 176.
   princeps DUP., i. l., Dej., Cat., III, p. 2.
   dejeani CHEV. (olim), Dej., Cat., III, p. 2.

c. Cicindelini W. HORN, Deutsch. Ent. Zeitschr., 1899, p. 37.

Cicindela *Linn.*, Syst. Nat., II, 1735, p. 657.

Group I. *Malis nudis, fronte pilosa.*

6. **latesignata** *Lec.*, Ann. Lyc. N. Y., V, 1851, p. 172.
7. **oregona** *Lec.*, Trans. Am. Phil. Soc., XI, 1856, p. 41.
   guttifera LEC., l. c., p. 42.
8. **hirticollis** *Say* var. **ponderosa** *Thom.*, Arc. Nat., 1859, p. 89.
9. **scutellaris** *Say** var. **unicolor** *Dej.*, Spec., I, 1825, p. 52.
10. **pimeriana** *Lec.*, Proc. Ac. Nat. Sc. Phil., 1866, p. 363.
   viatica LEC., Tran. Am. Phil. Soc., XI, 1856, p. 62.

Group. II. *Malis fronteque nudis, disco et marginibus antico posticoque prothoracis nudis (antennis numquam pilis longissimis ornatis).*

11. **chrysippe** *Bat.*, Biol. Cent. Amer., I, Suppl., 1884, p. 257, pl. 13, f. 2.
12. **hoegei** *Bat.*, l. c., I, p. 6, pl. 1, f. 5.
13. **smaragdina** *Chev.*, Col. Mex., VIII, 1835, No. 179.
14. **ioessa** *Bat.*, Biol. Cent. Amer., I, 1881, p. 5.
15. **beckeri** *Hoege*, Deutsch. Ent. Zeitschr., 1897, p. 185; W. Horn, Deutsch. Ent. Zeitschr., 1902, p. 231.
16. **lugens** *Klug*, Jahrb., I, p. 34.
   aberr. **aterrima** *Klug.*, l. c.
   carbonaria CHEV., Col. Mex., p. 128.
17. **nigrocœrulea** *Lec.*, Ann. Lyc. N. Y., IV, 1848, p. 181, pl. 14, f. 9.
18. **enthales** *Bat.*, Ann. Mag. Nat. Hist., 1882, p. 319.
19. **viatica** *Chev.*, Col. Mex., No. 180.
   melania BAT., Tran. Ent. Soc. Lond., 1890, p. 495; W. Horn, Deutsch. Ent. Zeitschr., 1898, p. 193.
   aberr. **nigrilabris** BAT., l. c., p. 495.
   aberr. **nigra** CHAUD., i. l. Cat. Coll., p. 35.

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* Not yet undoubtedly proved, that it occurs in Mexico.

20. **hornii** *Schpp.*, Bull. Brookl. Ent. Soc., VI, p. 88.
    anthracina G. HORN, Tran. Am. Ent. Soc., 1880, VIII, p. 139.
    aberr. **ritteri** *Bat.*, Tran. Ent. Soc. Lond., 1890, p. 496, pl. 16, f. 2; W. Horn, Ent. Nach., 1900, p. 116.
21. **scotina** *Bat.*, l. c., p. 494.
    aberr. **chloris** *Hoege*, Deutsch. Ent. Zeitschr., 1897, p. 168.
22. **luteolineata** *Chev.*, Rev. Mag. Zool., 1856, p. 351.
    flammula THMS., Ann. Soc. Ent. Fr., 1856, p. 326, pl. 8, f. 5.
32. **craveri** *Thms.*, Rev. Mag. Zool., 1856, p. 528.
24. **obsoleta** *Say*, et varietates.*
    I subsp. **latemaculata** *Becker*, Deutsch. Ent. Zeitschr., 1897, p. 169.
    II subsp. **juvenilis** *W. Horn*, l. c., p. 169.
    III subsp. **santaclaræ** *Bat.*, Tran. Ent. Soc. Lond., 1890, p. 493.

The Mexican specimens of this race are beautifully green, or brownish or black. The specimens from the United States (New Mexico) are very seldom full-green (generally only greenish !), sometimes bluish and brownish, more often black. Notwithstanding this variability in color it is very easy to distinguish this subspecies from other forms of *C. obsoleta* Say, from the United States, as the pattern of the elytra almost always shows a constant feature : in the type it is "lineiformis," in subspecies *santaclaræ* Bat. "punctiformis."

    IV subsp. **thalestris** *Bat.*, Tran. Ent. Soc. Lond., 1890, p. 494.
25. **rufiventris** *Dej.*, Spec., I, 1825, p. 102.

Var. *hentzii* Dej., Spec., V, 1831, p. 148 = *hæmorrhoidalis* Hentz, Tran. Am. Phil. Soc., 1830, p. 254, pl. 2, f. 2, does not occur in Mexico ; it was a mistake by G. Horn, who took a variety of *P. cartagena* Dej., to be this variety of *rufiventris* (confer. W. Horn, Deutsch. Ent. Zeitschr., 1902, p. 378).

    I subsp. **flohri** *Bat.*, Proc. Zool. Soc. Lond., 1878, p. 588.
    II subsp. **beckeri** *W. Horn*, Deutsch. Ent. Zeitschr., 1897, p. 171.
    III subsp. **reducta** *W. Horn*, l. c., p. 171.
    aberr. **hoegeana** *W. Horn*, l. c., p. 171.
    IV subsp. **sedecimpunctata** *Klug*, Jahrb., 1834, p. 32.
    rubriventris CHEV., Col. Mex., No. 101.
    ventanasa BAT., Tran. Ent. Soc. Lond., 1890, p. 503.
    This variety occurs also in the United States ; South Arizona (Rivers).
    aberr. ? **parallela** (*Fet.*, i. l., Cat. Cic., p. 70) Bat., l. c., p. 503.
    aberr. **sallei** *Chev.*, Col. Mex., No. 126.
    aberr. **mellyi** *Chd.*, Bull. Mosc., 1852. p. 19.
    calochroides MOTSCH., Et. Ent., VI, 1857, p. 109.
26. **hydrophoba** *Chev.*, Col. Mex., No. 125.
    aberr. **tenuisignata** *Fet.*, i. l. Cat. Cic., p. 69 (Bat., Biol. Cent. Am., I, p. 8).

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* The typical *C. obsoleta* Say is not known from Mexico.

I subsp. **quinquenotata** (*Sturm*, i. l.) *Bat.*, Biol. Cent. Am., I, p. 8.
signatodilatata FET. i. l. Cat. Cic., p. 69.
II subsp. **taretana** *Bat.*, Biol. Cent. Am., I, Suppl., p. 259.
27. **dysenterica** (Chaud. i. l., Cat. Coll., p. 29) *Bat.*, Biol. Cent. Am., I, p. 7.
I subsp. **dugesi** *Bat.*, Biol. Cent. Am., I, Suppl., p. 258.
aberr. **calomicra** *Bat.*, Tran. Ent. Soc. Lond., 1890, p. 501.
II subsp. **deliciola** *Bat.*, l. c., p. 502.
III subsp. **clarina** *Bat.*,* Biol. Cent. Am., I, p. 6.
despecta SRHM., i. l. (Mus. Berol.).
truquii CHAUD., i. l. (Mus. Paris).
28. **rugatilis** *Bat.*, Tran. Ent. Soc. Lond., 1890, p. 497.
semicircularis BAT. (olim), Biol. Cent. Am., I, p. 6, t. 1, f. 19.
29. **catharinæ** *Chev.*, Col. Mex., No. 178.
30. **punctulata** *Oliv.*, Ent., II, 1790, No. 33, p. 27, pl. 3, f. 37, a, b.
micans FABR., Ent. Syst., 1798, p. 61.
obscura MELSH., Cat. Ins. Pennsv., 1806, p. 46.
aber. **jenisoni** *Gistl.*, Syst. Ins., I, p. 55.
aber. **chihuahuæ** *Bat.*, Tran. Ent. Soc. Lond., 1890, p. 500.
micans SCHAUPP, Bull. Brookl. Ent. Soc., 1884, p. 98.
31. **digueti** *W. Horn*, Deutsch. Ent. Zeitschr., 1897, p. 186.
32. **politula** *Lec.*, Tran. Am. Ent. Soc., 1875, p. 159.
33. **nebuligera** *Bat.*, Tran. Ent. Soc. Lond., 1890, p. 504, pl. 16, f. 8.
34. **phosphora** *Bat.*, Cist. Ent., 1878, p. 329.
35. **guerrerensis** *Bat.*, Tran. Ent. Soc. Lond., 1890, p. 499, pl. 16, f. 5.
36. **præcisa** *Bat.*,† l. c., p. 498, tab. 16, f. 4.
37. **æneicollis** *Bat.*, Biol. Cent. Am., I, p. 13.
aber. **viridis** *Becker*, Deutsch. Ent. Zeitschr., 1897, p. 176.
38. **papillosa** *Chaud.*, Bull. Mosc., 1854, p. 123.
39. **semicircularis** *Klug*, Jahrb. 1834, p. 33. (nec Bates!).
aber. **plurigemmata** *Bat.*, Tran. Ent. Soc. Lond., 1890, p. 496, pl. 16, f. 3.
40. **cyaniventris** *Chev.*, Col. Mex., No. 27.
corvina LEC., Tran. Am. Phil. Soc., 1856, p. 53, pl. 1, f. 47.
rugipennis DUP., i. l., Dej. Cat., III, 1837, p. 6.
aber. **chevrolati** *W. Horn*, Deutsch. Ent. Zeitschr., 1892, p. 371.
41. **radians** *Chev.*, Mag. Zoöl., 1841, p. 57.
42. **aurora** *Thms.*, Arc. Nat., 1859, p. 90.
43. **vasseleti** *Chev.*, Col. Mex., No. 33.
44. **flavopunctata** *Chev.*, l. c., No. 28.
aber. **humeralis** *Chev.*, Mag. Zoöl., 1841, p. 59.
aber. **ocellata** *Klug*, Jahrb., p. 33.
aber. **incerta** *Chev.*, Col. Mex., p. 127.
aber. **chiapana** *Bat.*, Tran. Ent. Soc. Lond., 1890, p. 505.
I subsp. **rectilatera** *Chd.*, Bull. Mosc., 1843, p. 693.
decostigma LEC., Tran. Am. Phil. Soc., 1856, p. 54, pl. 1, f. 48.
texana LEC., i. l., List of Col.

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* Aberrat colore fusco: La Venta (Fényes).

†Near Matamoras, collected by Dr. Fényes.

C. rectilatera Chaud., was considered until now as distinct species, but the differences distinguishing it from *C. flavopunctata* (form of the labrum, general shape of the body, coloration and pattern, tip of the elytra) are very small and show variations. I have seen specimens of the latter having only the extreme tip of the abdomen reddish-testaceous.

45. **roseiventris** *Chev.*, Col. Mex., 1834, No. 29.
    semicircularis CHEV., Col. Mex., 1835, index (nec Klug !).
  subsp. **mexicana** *Klug*, Jahrb., 1834, p. 31.
    decostigma CHEV., Col. Mex., III, fasc. 1834–35.
    belti BAT., Proc. Zool. Soc. Lond., 1878, p. 588.
46. **klugi** *Dej.*, Spec., V, p. 263.
    neglecta KLUG, i. l., Dej. Cat., III, p. 5.
  aberr. **douei** *Chenu.*, Mag. Zool., 1840, p. 1 (Mexico !).
47. **carthagena** *Dej.*, Spec., V, p. 229.
  I subsp. **hentzii** *G. Horn*, ex parte (nec Dej. !) Proc. Cal. Acad. Sc., 2d Ser., Vol. IV, 1894, p. 307 ; W. Horn, Deutsch. Ent. Zeitschr , 1902, p. 378.
  II subsp. **hæmorrhagica** *Lec.*,* Ann. Lyc. N. Y., V, 1851, p. 171.
48. **sommeri** *Mann.*, Bull. Mosc., 1837, p. 12.
    hopfneri DEJ., i. l., Cat., III, p. 3.
    fusconigra HOPFN., i. l., Dej. Cat., III, p. 3.
    ferrugata PUTZ., Mém. Liège, II, 1846, p. 366.
49. **tenuisignata** *Lec.*, Ann. Lyc. N. Y., 1852, p. 171.
    psilogramma BAT., Tran. Ent. Soc. Lond., 1890, p. 507, pl. 16, f. 10
50. **fera** *Chev.*, Col. Mex., 1834, No. 30.
    tenuilineata Brll., Arch. Mus., I, 1838, p. 128.
51. **sinaloæ** *Bat.*, Tran. Ent. Soc. Lond., 1890, p. 505.
52. **schaefferi** *mihi* (spec. nov.), hoc loco p. prima.

Group III. *Malis fronteque nudis, thoracis marginibus omnibus et (interdum sparsissime) disco hirsutis, basi plerumque dilatata, pedibus posticis valde elongatis.*

53. **chlorocephala** *Chev.*, Col. Mex., 1834, No. 32.
54. **leuconoe** *Bat.*, Tran. Ent. Soc. Lond., 1890, p. 508, pl. 16, f. 11.
55. **macrocnema** *Chd.*, Bull. Mosc., 1852, p. 15.
  subsp. **batesi** *W. Horn*, Deutsch. Ent. Zeitschr., 1894, p. 111.
  aberr. **albina** *W. Horn*, l. c., p. 240.
56. **curvata** *Chev.*, Col. Mex., 1834, p. 31.
57. **dorsalis** *Say* (subsp. **media** *Lec.*) aberr. **castissima** *Bat.*, Biol. Cent. Am., I, Suppl., p. 260, pl. 13, f. 1.
  subsp. (**saulcyi** *Guér.*) aberr. **venusta** *Laf.*, Rev. Zool., 1841, pp. 37, 96.
    saulcyi GUÉR. var. A. Rev. Zool., 1840, p. 37.

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* The variations of this subspecies with reduced pattern (var. *bisignata* Dokht.) and *pacifica* Schpp. are not yet known from Mexico.

Group IV. *Malis, fronte, thoracis disco nudis (antennis sparsissime sed longissime pilosis); antico thoracis margine fere toto piloso.*

58. **gabbii** *G. Horn*, Proc. Acad. Sc. Phil., 1866, p. 395.

Group V. *Malis fronteque nudis, thoracis marginibus late, lateralibus anticoque et disco* pilosis, pedibus posticis non elongatis.*

59. **trifasciata** *Fabr.*, Sp. Ins., I, 1781, p. 286.
    tortuosa DEJ., Spec., I, p. 87.
    var. **tortuosa** *Lec.*, Tran. Am. Phil. Soc., 1856, p. 92.
60. **pusilla** *Say*, Journ. Ac. Sc. Phil., I, 1817, p. 21.
    subsp. **lunalonga** *Schpp.*, Bull. Brookl. Ent. Soc., VI, 1884, p. 122. Lower California.
    aberr. **tuolumnæ** *Leng*, Trans. Am. Ent. Soc., 1902. Lower California.

The specimens I know show all intermediate forms between this aberration and the subspecies *lunalonga* Schpp.

61. **speculans** *Bat.*, Tran. Ent. Soc. Lond., 1870, p. 500, pl. 16, f. 6.
62. **viridisticta** *Bat.*, Biol. Cent. Am., I, p. 14, pl. 1, f. 20; Chaud., i. l., Cat. Coll., 1865, p. 23.
63. **arizonensis** *Bat.*, Biol. Cent. Am., I, Suppl., p. 260; W. Horn, Deutsch. Ent. Zeitschr., 1903, p. 182.
64. **wickhami** *W. Horn*, l. c., p. 182.
65. **hemichrysea** *Chev.*, Col. Mex., 1835, VI, No. 129.
    aberr. **inspersa** *Chev.*, l. c., No. 130.
    aberr. **cyanosparsa** *Chaud.*, Bull. Mosc., 1852, p. 23.
66. **nephelota** *Bat.*, Ann. Mag. Nat. Hist., Ser. 5, IX, p. 319.
67. **debilis** *Bat.*, Tran. Ent. Soc. Lond., 1890, p. 509, pl. 16, f. 12.
68. **schauppii** *G. Horn*, Tran. Am. Ent. Soc., 1876, p. 240.
69. **severa** *Laf.* † var. **yucatana** *Chd.* i. l., Cat. Coll., p. 28; W. Horn, Deutsch. Ent. Zeitschr., 1896, p. 354.

Var. statura paullo minore, margine laterali elytrorum ab humeris usque ad spinam suturalem (ut in *C. circumpicta* Laf. intus undulato) albo. —Yucatan.

70. **californica** *Mén.*, Bull. Soc. Imp. Pétersb., 1844, p. 52.
    aberr. signatura marginali elytrotrum late confluente.
    subsp. **prætextata** *Lec.*, Proc. Acad. Sc. Phil., 1854, p. 220.

This variety differs from *C. californica* Mén, not only in pattern. The body, especially the prothorax, is slender, the tip of the elytra not so much rounded (spine less retracted), etc. But after examining some more specimens, it seems to me to be a geographical race of Ménétries' species. The latter was confounded always with *C. circumpicta* Laf., from which it may be separated by the constantly finer striation of the front between the eyes, etc.

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* Interdum sparsissime.

† I am not absolutely sure about the pubescence on the disc of the pronotum, but I believe fresh specimens will show some bristles inside of the lateral ones.

Group VI. *Malis pilosis, fronte nuda.*

71. **euryscopa** *Bat.*, Tran. Ent. Soc. Lond., 1890, p. 506.

Group VII. *Malis fronteque pilosis.*

72. **sperata** *Lec.*, Tran. Am. Phil. Soc., 1856, p. 50.
73. **hamata** *Brll.*, Arch. Mus., I, 1838, p. 132, pl. 8, f. 9.
    christofori CHEV., Mag. Zoöl., 1841, p. 15.
    reichei CHAUD., Bull. Mosc., 1843, p. 689; 1854, p. 115.
    ♀ *apicalis* CHAUD., Bull. Mosc., 1843, p. 691.
  subsp. (**lacerata** *Chaud.*), aberr. **pallifera** *Chaud.*, Bull. Mosc., 1852, I, p. 17.
    canosa G. HORN, Entom. News, 1892, p. 26 (Lec. i. l.).

SUPPLEMENT.

74. **lemniscata** *Lec.*, Tran. Ac. Sc .Phil., 1854, p. 220.

II. MEGACEPHALIDÆ *Lac.*

Tetracha* HOPE, Man., II, p. 7.

75. **angustata** *Chev.*, Mag. Zoöl., 1841, p. 55.
    obscura HÖPFN., i. l., Dej. Cat., III, p. 1.
  aberr. **fuliginosa** *Bat.*, Ent. Month. Mag., 1874, p. 261.
76. **affinis** *Dej.*, Spec., I, 1825, p. 12.
    impressa CHEV., Mag. Zool., 1841, p. 56.
77. **sobrina** *Dej.*, Spec., V, 1831, p. 202.
  aberr. **geniculata** *Chev.*, Col. Mex., 1834, No. 26.
78. **carolina** *L.*, Syst. Nat., XII, ed. 1735, (?) p. 657.
    carolinensis LATR., Gen. Crust. Ins., I, 1806, p. 175.
  aberr. **splendida** *Dokht.*, Spec. Cic., I, 1882, p. 46.
  aberr. **boisduvali** *Gistl.*, Syst. Ins., I, p. 7.
  aberr. **mexicana** *Gray*, Anim. Kingd., I, 1832, p. 263, pl. 29, f. 1.
  aberr. **maculicornis** *Cast.*, Rev. Silb., II, 1834, p. 28.
  aberr. **mexicana** *Chev.*, Col. Mex., No. 25.
  I subsp. **chevrolati** *Chaud.*, Bull. Mosc., 1860, IV, p. 334. This form belongs to *T. carolina* and not to *T. infuscata* Mann.
  II subsp. **cyanides** *Bat.*, Biol. Cent. Am., I, p. 1.
79. **virginica** *L.*, Syst. Nat., II, 1735, p. 657.
    virginata L., Syst. Nat. Gmel., I, 4, 1788, p. 1922.

III. NEOMANTICHORIDÆ W. Horn, Deutsch. Ent. Zeitschr., 1898, Suppl., p. 16.

Amblychilinæ CSIKI, Math. Nat. Ber. Ungarn, XVIII, 1900/2, p. 124.

Amblychila *Say*, Journ. Ac. Sc. Phil., III, 1823, p. 139.

Chaleposomus CHAUD., Bull. Mos., 1860, II, p. 337.

80. **baroni** *Rivers*, Ent. Am., VI, 1890, p. 111; W. Horn, Deutsch. Ent. Zeitschr., 1902, pp. 179, 190, 196; 1903, p. 97. Sonora (Arispe).

In regard to localities, unnamed varieties and citations in literature I refer to my first paper: Deutsch. Entom. Zeitschr., 1897, p. 161.

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* *T. infuscata* Mann., in all probability does not occur in Mexico.

Of the above noted eighty species of Cicindelidæ thirty* occur in the United States, four species (*Cicindela trifasciata* F., *flavopunctata* Chev., *carthagena* Dej. and *Tetracha carolina* L.) are known from the United States, Mexico and countries south of Mexico. The species with the widest geographical distribution is the last one, which runs down to the north of Chile. The four tropical genera (*Ctenostoma*, *Hiresia*, *Beckerium* and *Odontochila* represented all together only by five species!) belong all to the extreme south of Mexico (south of Vera Cruz).

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THEORY AS TO EVOLUTION OF SECONDARIES OF MOTHS OF THE GENUS CATOCALA.†

ARCHIBALD C. WEEKS.

The conspicuous beauty of the secondaries of the members of this genus, the delight and admiration of every collector, is so wonderfully and handsomely differentiated from that of their plainer congeners of the noctuidæ as to entitle it to some speculation as to its origin. Although there is something to admire in the colorative arrangement of the subdued and modest hues of the species of allied genera, nevertheless, in both primaries and secondaries of the latter prevail shades ranging from black, brown, pale yellow, red, green and gray to white, all calculated to make their wearers invisible by reason of their more or less perfect blending with the color scheme of earth, rocks, and dead or living vegetation, and so escape observation of enemies and perpetuate their species. The *Catocala*, however, though provided with primaries similarly marked and obviously for the same purpose yet possess secondaries adorned with brilliant red, scarlet, magenta, pink, yellow, blue, black or white, as startling a contrast of vestiture as could possibly be imagined. Instead of a coloration developed along the lines of agreement or identification with environment we here find one which apparently scorns concealment and openly and

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* 29, if *Cicindela sommeri* Mann. would not belong to the fauna of the United States.

† Read before the Entomological Department of the Brooklyn Institute of Arts and Sciences, February 26, 1903, and Brooklyn Entomological Society, April 2, 1903.